ABSTRACT

~~The invention is to provide a~~A non-aqueous electrolyte cell ~~having: the advantage of no risk of igniting, no risk of exploding and catching fire in the event of short-circuit, low internal resistance, good low-temperature discharge characteristic, good degradation resistance, good self-extinguishability and flame retardancy, good electrochemical stability, high voltage, high discharge capacity, and which can be manufactured easily. Of the non-aqueous electrolyte cell of the invention that~~ comprises a non-aqueous electrolyte, a positive electrode and a negative electrode. The ~~electrode, the first aspect is such that the~~ non-aqueous electrolyte ~~contains~~ may contain lithium ions and a ~~phosphagen~~ phosphazene derivative having a flash point of not lower than 100°C.~~100°C; the second aspect is such that the~~ The non-aqueous electrolyte ~~contains~~ may contain a supporting salt, an organic solvent and a ~~phosphagen~~ phosphazene derivative, the lowermost limit of the potential window of the ~~phosphagen~~ phosphazene derivative is at most +0.5 V, the uppermost limit thereof is at least +4.5 V, and the potential window of the organic solvent is wider than that of the phosphazene derivative.~~phosphagen derivative; the third aspect is such that the~~ The non-aqueous electrolyte ~~contains~~ may contain a supporting salt and a ~~phosphagen~~ phosphazene derivative whose electroconductivity in a lithium salt solution (0.5 mol/liter) is at least 2.0 mS/cm. ~~2.0 mS/cm; and the fourth aspect is such that the~~ The non-aqueous electrolyte ~~contains~~ may contain a supporting salt and a ~~phosphagen~~ phosphazene derivative whose dielectric constant at 25°C is at least 15 and the viscosity is at most 20 mPa·s (20 cP).